TECHINICAL DETAILS IN SIMPLIFIED ABDOMINAL ESOPHAGOJEJUNOSTOMY

AUTHOR(S):

KISHIMOTO, HIDEO

CITATION:

KISHIMOTO, HIDEO. TECHINICAL DETAILS IN SIMPLIFIED ABDOMINAL ESOPHAGOJEJUNOSTOMY. 日本外科宝函 1963, 32(4): 568-573

ISSUE DATE:

1963-07-01

URL:

http://hdl.handle.net/2433/205539

臨　　床

TECHINICAL DETAILS IN SIMPLIFIED ABDOMINAL ESOPHAGOJEJUNOSTOMY

by

HIDEO KISHIMOTO

From the Surgical Department of the National Sasayama Hospital

Received for Publication Apr. 17. 1963

Previouly, I reported on a method of abdominal esophago-jejunostomy, which I had believed to be a simpler and safer procedure in the performance of the operation. Recently, I tried to simplify the former techinics still more. This new procedure in the operation had seemed to serve very well.

DETAILS OF PROCEDURE

The schematic drawing (Fig. 1) shows the position of the viscera after this operation is completed.

1) Esophagus is mobilized and drew out from mediastinum sufficiently and grasped with two forceps adjacent to cardia. Between these two forceps, esophagus (stomach) is cut off (Fig. 2).

Esophagus is retracted upward with the forceps and incision line is planned on posterior wall of the esophagus (Fig. 3, xyz) and, if prefer, marked with two traction sutures. The line must be possibly adjacent to the forceps, so as any remarkable strain does not act on the anastomosis after the operation is completed.

2) A loop of jejunum is brought up through a opening in mesentery of the colon. The loop of jejunum should have a surplus in its length to allow longer Braun's anasto-

Fig. 1

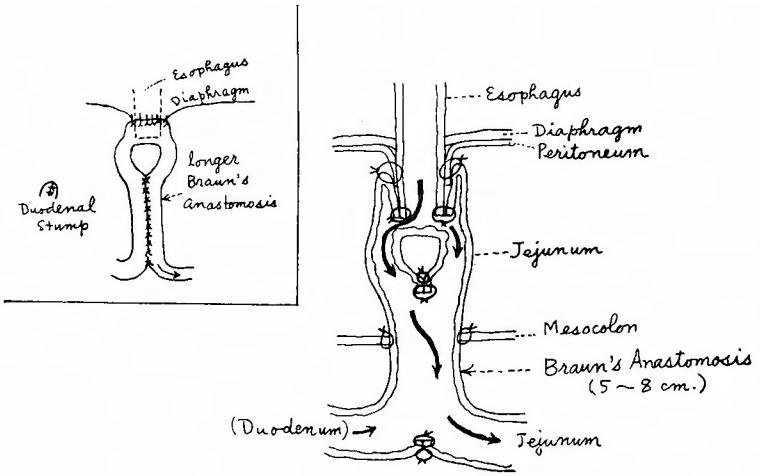


Fig. 2

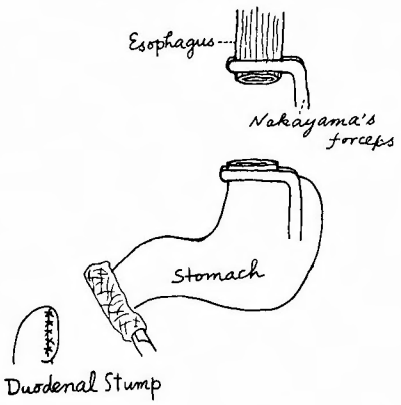


Fig. 3

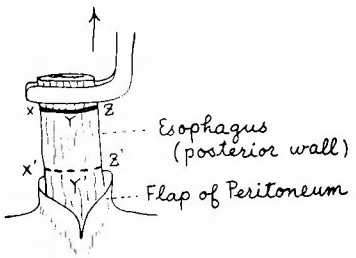


Fig. 4

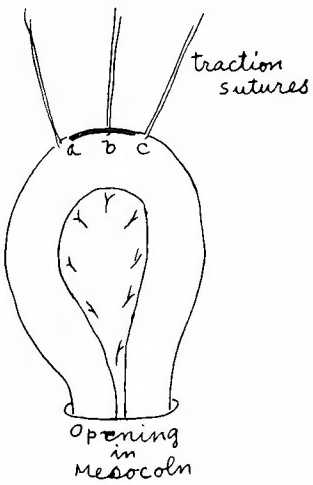
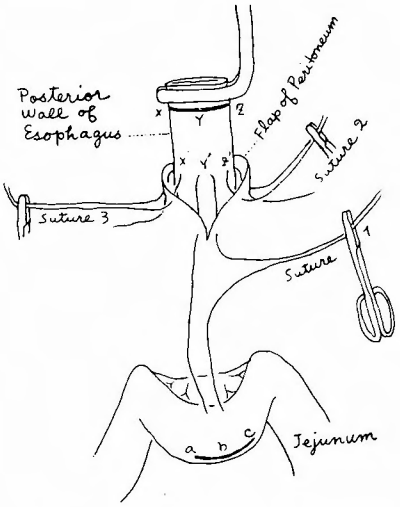


Fig. 5



mosis (5-8cm).

3) Incision lines for anastomosis is planed on the top of the loop of jejunum (Fig. 4, abc), three traction sutures are placed at both ends and at the middle of the line abc.

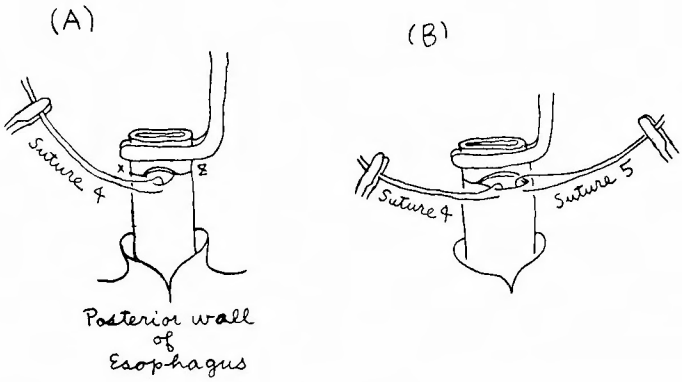
4) Line x′y′z′ is decided on esophagus wall proximal to the line xyz, approximating in distance from line xyz, the width of the jejunum (Fig. 3, 5).

Now, the first suture is placed in esophagus through flap of peritoneum around Hiatus Esophageus at the middle of x′y′z′ (Fig. 5, suture 1), then second and third suture is placed in esophagus at each side, also, through the flap of peritoneum, each along line x′y′z′ (Fig. 5, suture 2, 3). These sutures act as strain releasing plus serosal sutures and much guarded by including flap of peritoneum.

5) Top of the jejunum is turned over downward with 3 traction sutures and one end of suture 1 is placed in the jejunum at the point just adjacent to its mesenterial border and corresponding to point b (the middle of the line abc) (Fig. 5).

6) Small incision is made at the center of line xyz, bleeding vessels, if ever, are

Fig. 6

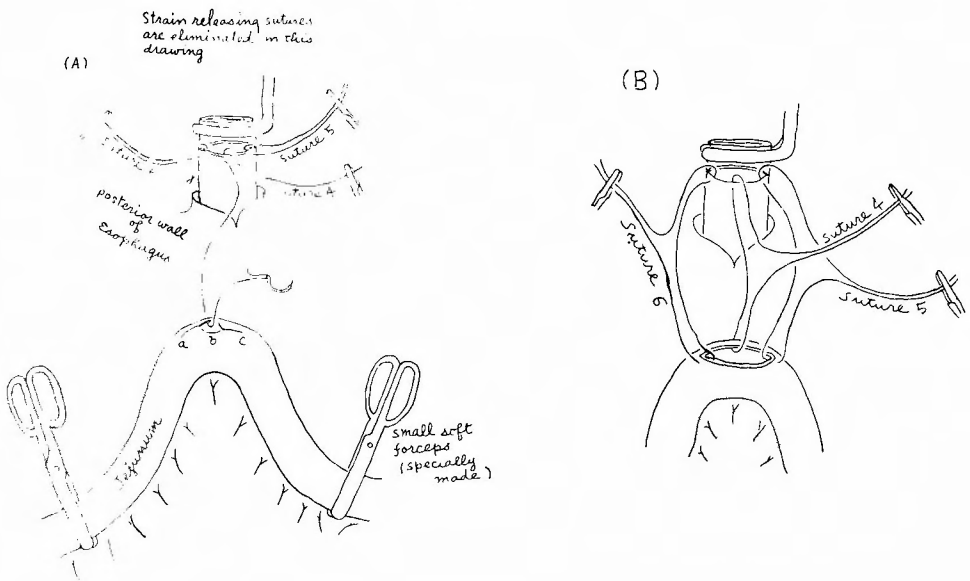


ligated, then through whole esophagus wall suture 4 is placed at the middle of line xyz (Fig. 6, A). The incision is enlarged to each direction respectively along line xyz, and suture 5 and 6 is placed in esophagus wall at each end of the incision (Fig. 6, B).

7) In each side of jejunum, small soft forceps is laid in quer direction and far distant from line abc, so as not to include any vessel of the mesentery of jejunum. Then, small incision is also made in the jejunum about at b, the bowel content aspirated, bleeding vessels grasped and ligated and one end of suture 4 is placed in the jejunum at the middle of the opening (Fig. 7, A). The incision is, likeweise, enlarged to each direction along line abc, and one end of suture 5 and 6 is placed at each end of the incision repectively (Fig. 7, B).

8) Now, suture 1, then 4, 5 and 6 are ligated by turns and, thus, both stomas in esophagus and jejunum are approximated, first in this stage. Additional sutures are placed

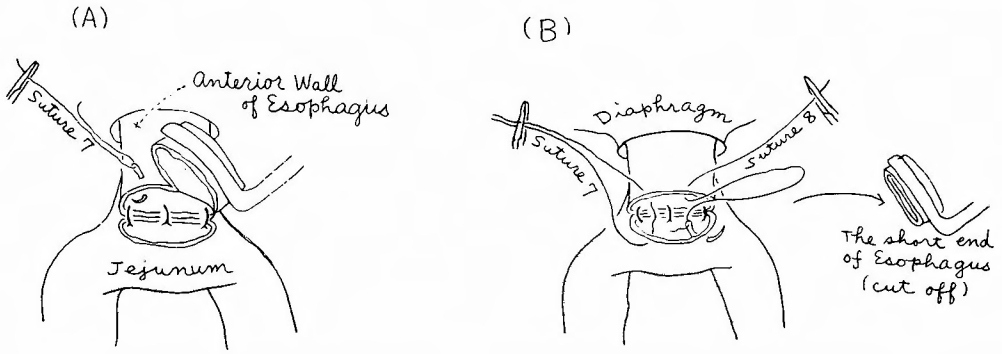
Fig. 7



between suture 4, 5 and 6, if necessary, however it is futile to place minute sutures and these additional sutures seems to be rather unfavorable. As to these sutures, it is expected only to stick both stomas together in situs.

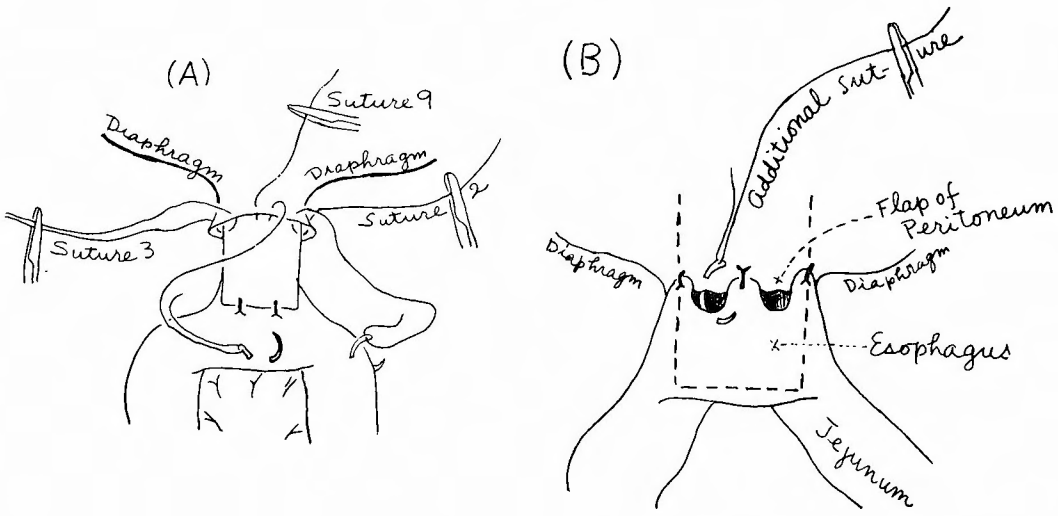
9) Now, anterior wall of esophagus is visualized with the forceps and anterior esophagus wall is incisid gradually from right to left side at the same level in line xyz, placing suture 7 and 8 accordingly as the incision enlarged (Fig. 8, A). Ultimately, the short end of esophagus is cut off with forceps (Fig. 8, B). Next, one end of both suture 7 and 8 is placed in the stoma of jejunum correspondingly to the stoma of esophagus (Fig. 8, B). Additional sutures are placed, if necessary, and all these sutures are ligated in turns (anterior row of suture).

Fig. 8



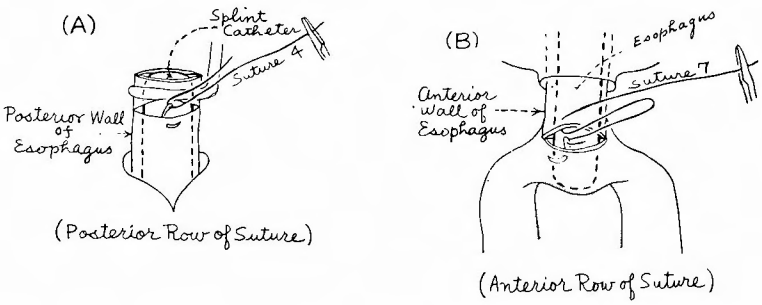
10) Through the flap of peritoneum, suture 9 is placed in esophagus in the middle of and at the level in line xyz and one end of this suture is placed in jejunum adjacent to its mesenterial border of the opposite side, correspondingly to point b (Fig. 9, A). One end of both suture 2 and 3 is also placed in jejunum so as to wrap up the esophagus with the jejunum (Fig. 9, B).

Fig. 9



All these sutures are ligated in turns. Additional sutures are placed both anteriorly and posteriorly between suture 1, 2, 3 and 9. These sutures must be relatively thick so as it gives water tight contaction betwen the esophagus wall and the serosa of jejunum. It is sometimes difficult to include the esophagus wall in these additional sutures. In such a case, it is sufficient to sew the flap of periteneum around the Hiatus to the jejunum.

Fig. 10



11) Now, much longer (5-8 cm) Braun's anastomosis is performed after routine manner and the jejunum is sutured to the opening of the mesocolon (Fig. 1).

12) If operater prefers, it is convinient to use relatively thick catheter as splint of the esophagus, while in performance of esophagojejunostomy (Fig. 10).

DISCUSSION

The chief point in this modification from old techinics lies in eliminating 3 rows of sutures in former procedure into 2 rows. Safe guard in the anastomosis is achieved mainly by wide contaction of the serosa of jejunum with the wall of esophagus (wraping up techinic) and by avoiding traum caused by forceps. Reflux of the content of jejunum after anastomosis is possibly defenced by protruded esophagus and longer Braun's anastomosis, which may act as a regulating pool for bowel contents.

I believe these techinics above concerned may serve as a easy and convinient procedure, when abdominal esophagojejunostomy is decided. Some of the techinics in this procedure, especially the "wraping up techinic" (to make wide contaction of the serosa of jejunum with esophagus wall as a safe guard of the anastomosis) can be successfully applied also in thoracal esophagojejunomy.

LITEARATURE

1) Hideo Kishimoto : Protection of Anastomosis by means of direct and intermittent application of Antibiotics through a tube inserted into the Alimentary Canal ; Arch. Jap. Chir. xxvi, 195, Jan. 1957.

和 文 抄 録

簡易な腹式食道空腸吻合の手技

国立篠山病院外科
岸　木　秀　雄

私は，以前に簡便と考えた腹式食道空腸吻合の手技について報告した[1]が，その後さらに手技の簡易化を行い，それが有用であることを経験したので，その手技の詳細について述べた．（附図参照）

この手術手技は，1）非常に行い易いこと．2）吻合部食道および空腸壁に鉗子をかけないことや，（これによつて空腸用腸鉗子が小型化され，そのため一層手術が行い易い．）空腸で食道壁を包むようにして，つまり出来るだけ広い面積の空腸漿膜を食道壁に接触せしめるよう工夫すること（wraping up techinic）等によつて吻合の確実性を計つたこと，および 3）食道端を空腸腔内に突出せしめ，かつブラウン吻合を普通よりずつて巾広く行うことによつて貯池作用を持たせ，それ等によつて逆流による食道炎の防止軽減を計つた点などによつて有用な手技であると信じている．